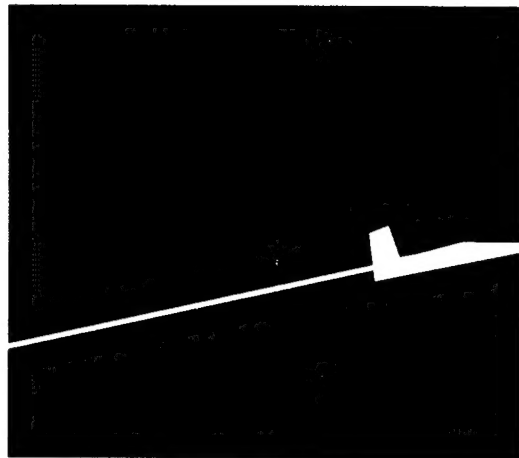


SID12196



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Supportability Investment Decision Analysis Center

Contract No. F33657-92-D-2055/0066
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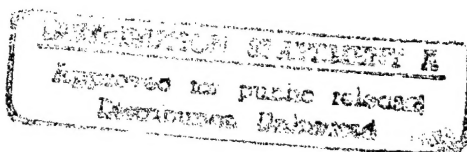
TASK ASSIGNMENT PLAN

for

Create PC Version of ABACUS

Prepared for

HQ USAF/LGSI
1030 Air Force
The Pentagon
Washington, DC 20330-1030



21 December 1994

Prepared by

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on
Create PC Version of ABACUS

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Task Assignment Plan on Create PC Version of ABACUS

Introduction

The mission of the Aircraft/Missile Support Division is to support the Defense Business Operations Fund (DBOF) budget process by developing budget requirements from a functional standpoint, defending the budget to the Office of the Secretary of Defense (OSD) and to Congress, and overseeing the execution of the budget. AF/LGSY works hand-in-hand with the Secretary of the Air Force, Financial Management (SAF/FM) community in this process. To accomplish its mission, the budget development process must be responsive, flexible, and accurate so that the Aircraft/Missile Support Division can respond to questions and challenges from OSD and Congress. The inability to respond adequately to these questions could degrade the ability of the Supply and Maintenance communities to support the USAF's peace and war missions.

The increased role of Air Logistics Centers in all phases of DBOF budget development is critical to making the best weapon system support decisions. To this end, the Automated Budget Analysis/Centralized User System (ABACUS) must be made available to DBOF analysts at the ALCs. To provide ABACUS to these new users in the most cost effective way, it must first be converted to a PC-based environment.

Goals and Objectives

The objective of this task is to cover the analysis and programming required to convert the ABACUS to a PC-based environment. This support will be provided directly to the Aircraft/Missile Support Division and to other users of ABACUS.

Technical Approach

The conversion of ABACUS-1 to ABACUS-2, which will operate in a PC environment, will be accomplished by porting and converting existing code where possible and by redesigning parts of the system that cannot be ported. This process will be different for each component of the system and will follow closely recommendations made in a previous study.

For the user interface, the character-based interface used in ABACUS-1 was unique to the development platform. It will be replaced in ABACUS-2 by a new interface built using PowerSoft's PowerBuilder, a Graphical User Interface (GUI) tool used to develop client/server applications. The starting point will be the prototype interface built in an earlier task. This interface will be refined to meet user needs by an iterative process called Rapid Application Development, which involves user interaction and continuous development.

Another component of ABACUS-2 is the data base itself. The ABACUS-1 data base will be ported to a PC and converted to run under the chosen DBMS, Sybase. Some limited redesign will be accomplished in this phase to take advantage of numerous new capabilities available for increasing data base performance. In addition, the data base will be documented and updated using data modeling techniques and CASE tools.

The report component of ABACUS-1 will be converted from Unix C in the current environment to Borland C++ in the ABACUS-2 environment. Again, capabilities that are available to increase

performance and maintainability will be used to improve this part of the system, but increased functionality will not be provided.

In terms of ABACUS-2 documentation, several improvements will also be made. An on-line help system, which is integrated with the End User Manual, will be built. Additionally, the Report Linkages, currently provided only in hard copy format, will be made available on-line to users.

Inputs

Synergy requires access to ABACUS-2 users for demonstrations and to provide feedback on system functionality. In addition, the government must provide data base servers, including hardware and software, to be placed on-site at SAF/FMBMR and at HQ AFMC/FM. Users of ABACUS must have compatible versions of commercially available software, including the most up-to-date versions of MS Word and MS Excel, both of which will be called by ABACUS to provide for word processing and spreadsheet capabilities. Finally, all communications infrastructure required to support the client/server version of ABACUS must be provided by the government. This includes compatible LANs to access local servers, Wide Area Networks (WANs) to support data transfer, and phone lines and modems required for emergency access and maintenance of remote servers.

Project Schedule and Milestones

Table 1 provides a project timeline for this task order.

Table 1. Project Timeline

DELIVERABLE	DUE DATE
Task Assignment Plan (A009)	16 December 1994
Contractor's Progress Status and Management Report (A004)	Monthly
Technical Report/Study Services (A001)	18 September 1995
Software Programmers Manual (A005)	18 September 1995
Software Users Manual (A006)	18 September 1995

Deliverables

The following documents will be delivered as part of this project.

Task Assignment Plan (CDRL A009) — The Task Assignment Plan establishes the goals and technical approach to be used in this project.

Contractor's Progress Status and Management Report (CDRL A004) — This monthly report will inform the SIDAC COTR of the progress on this project.

Technical Report/Study Services (CDRL A001) — The Technical Report will document the project activities and analysis results in the area of interactive DBOF pricing.

Software Programmers Manual (CDRL A005) — The Software Programmers Manual will be provided for the PC-based version of ABACUS to allow a third party to modify the software without help from the original programmer.

Software Users Manual (CDRL A006) — The Software Users Manual will be provided for the PC-based version of ABACUS to support the ABACUS user.

Project Staffing and Experience

The key workers on this task include Ms. Susan Gantz, Mr. Kevin McCool, Ms. Sandra Cihlar, and Mr. Phil Sanders. These personnel have worked on the ABACUS system for the past 3 years. Ms. Gantz, the lead analyst, has a graduate degree in economics and 10 years of experience working in logistics and financial analysis for the Air Force. Mr. McCool, the lead programmer, has a graduate degree in Computer Science and 10 years of experience in his field. He specializes in designing and implementing data base management systems. Ms. Cihlar, also a programmer, has 15 years of experience in her field. She specializes in data base management systems, testing, and quality control. Mr. Sanders, who has a background in Mathematics and Computer Science, serves as the primary programmer/analyst responsible for maintaining the current ABACUS system and is intimately familiar with the system. Mr. Sanders has 5 years total experience working in logistics and financial analysis. Besides these key personnel, three other programmers and analysts will also work on this task.

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